

SINGING HABITS OF TRAILL'S FLYCATCHER IN NORTHWESTERN MONTANA

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MUCH has been written concerning the calls, songs, and singing habits of Traill's Flycatcher (*Empidonax traillii*) in the eastern and mid-western states. Limited published data from the Rocky Mountain region suggest some noteworthy differences in these attributes of the species in that area, indicating the need for additional comparative information. The purpose of this paper is to meet some of that need.

My acquaintance with Traill's Flycatcher (presumably *E. t. brewsteri*) in northwestern Montana covers a period of more than 50 continuous years. The species breeds regularly at my ranch near Fortine (15 miles south of the Canadian border and 54 miles east of the Montana-Idaho line), where songs can be heard from the fields where I work. Many dawn and twilight hours over a period of several years were devoted to observation of the singing habits of the species.

While my notes contain records of a great variety of songs indulged in by birds of this area, no attempt will be made here to transcribe them all into phonetic interpretations. In order to discuss some aspects of singing habits, however, it will be necessary to identify general song types—use of which varies with the season, time of day, and accompanying action—and to include a few phonetic transcriptions. Description of these song types follows.

SONG TYPES

Type 1. Perch song: two-syllabled, accent on second; first beginning with a *wh* or *th* consonant sound, second beginning with *k*, *ch*, or *th*, shading into *ēēr*. Many variations, the commonest being *wheeth-keēr*, given during both daytime and evening hours, especially during the early part of the season; sometimes used almost exclusively during evening singing.

Type 2. Perch song: similar to Type 1 but with equal stress on the two syllables. Example: *wheé-deér*, given frequently at all seasons and hours.

Type 3. Perch song: two-syllabled, accent on first, second slurred downward; first syllable opening with *wh*, second rhymes with first syllable of word *urgent*. Example: *wheét-rrr*, a fairly common evening form, given especially after the general chorus ends; given at all seasons.

Type 4. Perch song: a variation of Type 3. Three-syllabled, accent on second, third slurred downward; first note deliberate, second rising and emphatic: *wh-wheét-rrr*. Given occasionally, daytime and evening, all seasons.

Type 5. Perch song series: variable, rapidly repeated single- or double-note phrases. Given more commonly in daytime than in evening choruses.

Type 6. Perch-to-perch flight song: variable, series of rapidly repeated two-, three-, and four-syllable phrases, with varying accent.

Type 7. Chase song: an open trill, decreasing in tempo and volume.

Type 8. True flight song: variable, often a rapid repetition of single syllables, but may be a series of phrases with as many as five syllables.

SEASONAL VARIATION

In my experience, less seasonal change in singing habits occurs with Traill's Flycatcher than with most breeding birds of the locality. Regular singing begins as soon as birds arrive in spring (late May or early June), and continues until they leave in August. In general, early morning and evening singing occurs throughout the period, with variation in the extent of daytime singing occurring on a daily rather than a seasonal basis. In some years there has been a seasonal decrease in daytime singing during the average time of incubation of eggs (late June), but insufficient observations have been made to determine if the singing continued then may be done only by unmated males or those of pairs whose nesting cycle has been disrupted.

With one exception, I have been unable to identify any definite seasonal change in the type of short perch songs given. Variations due to hours of the day (to be described) remain rather uniform throughout the season. The exception, which might be disproved by more extensive observation, is found in the use of Type 1 songs *whee-keér* and *whip-keér* in late July only.

WEATHER INFLUENCES

In this locality, the singing habits of this species are less subject to weather influences than are those of most song birds. I have observed Traill's Flycatchers singing normally during light and heavy rains and thunderstorms, on unusually cold mornings and during hot, sultry summer afternoons. My records indicate that following heavy rains during which some birds are singing, change to a light rain or drizzle will stimulate an increased total volume of singing. During hot July and August days when most birds are silent this flycatcher may continue to sing commonly.

HOURS OF SINGING

From several "listening posts" on my ranch can be heard the sound productions of as many as 56 species of birds nesting in fields, about buildings, in conifer woods, along streams and ponds, and in deciduous brushy flats.

From these sites, as well as from fields where I work, Traill's Flycatchers can be clearly heard. The large number of species heard in the same area furnishes a comparison with *E. traillii* as hours of singing are considered.

Dawn Singing.—In the locality studied Traill's Flycatcher is not noted as a dawn singer. Participation in early morning song, though it occurs at all seasons, is sporadic. Neither is this flycatcher one of the earlier singers, usually being preceded in vocal or other sound expressions by a dozen to 25 or 30 other species. Upon spring arrival birds can be heard as early as 03:20 local mean time, well before civil twilight. In mid-July singing has been recorded at 04:05. More often than not, birds do not commence singing until after sunrise.

Daytime Singing.—Among the more than 50 species with which direct comparisons are available, Traill's Flycatcher at my ranch is one of the most consistent and persistent daytime singers, especially in midsummer. From the time of dawn or post-sunrise beginnings, song usually can be heard throughout the day, dwindling to provide a two- or three-hour intermission before the evening chorus opens. Often during hot summer days this is the only species singing frequently at midday and during afternoon hours. Time has not been available to determine what pauses may be taken by individual birds during the day. It has been observed, however, that a particular bird often repeats its song at short but sometimes irregular intervals for several hours at a time.

Twilight Singing.—Although, judging from published reports, daytime singing is exceptionally common in the Fortine area, even here the "grand finale" is reserved for twilight hours. This is the time of true responsive singing, with timing, tempo, and song selection reflecting an interchange of communication between participating birds. From season to season and decade to decade, twilight singing shows certain rather unchanging characteristics.

Typically, in an area inhabited by several pairs of Traill's Flycatchers, not long after sunset birds will begin giving occasional *whit* calls, and a few scattered two-syllabled perch songs. Over a period of 20 to 70 minutes calls and songs gradually become more frequent, with only one or two birds contributing. Then when darkness has deepened (well past civil twilight), suddenly all birds break into song. Each gives notes rapidly, vigorously. Usually the chorus continues unabated for about 20 minutes, except for one or two periods of sudden complete silence lasting from 10 seconds to as long as three minutes. On other occasions, two or three birds will continue singing during these general pauses. I have not detected any specific seasonal change in the duration of the chorus.

The general chorus usually ends quite suddenly. I have records where no

further sounds were heard, but generally scattered calls and songs are given for a period as long as 10 minutes after the general chorus ends.

During the responsive singing period, with only occasional variation all birds repeat the same song. Usually this is the common Type 1 *whith-keér*. Yet perhaps the next night all will use the variation *wheeth-keér*. Interspersed occasionally some nights have been other expressions, principally Type 2 *wheé-deér*. With the closing of the chorus, a definite change is made. The final scattered songs then given are Type 3 or Type 4 songs: *wheé-derr*, *wheét-rrr*, or *wh-whéet-rrr*, all with the downward slurred final syllable. When the variation *wheeth-keér* (as normally accented) is given, it too has the second syllable fading downward with decreasing emphasis. Occasionally one of these "final" type songs will be interjected into an earlier intermission silent period (as though the bird assumed that the chorus had ended?).

During the intensive song period, individual birds usually repeat two- or three-syllabled songs at 1½ to 3-second intervals. While several birds are singing it is difficult to determine the timing. On one occasion I clocked a male that sang without interruption for 18 minutes, 20 to 36 songs per minute, for a total of about 600 songs. Another was timed at 6 to 7 songs each 10 seconds. Occasionally during the evening song period a few birds will indulge in the Type 5 perch song series. The Type 6 perch-to-perch rendition may be heard at times, although as a rule during chorus birds remain at one perch except when engaging in song-flight.

Evening observations over a long period of years have disclosed that of the 56 species of birds to be heard from listening posts on the ranch, at all times during its seasonal residence Traill's Flycatcher is almost always the latest bird to be heard. Usually all other species are silent for several to as much as 20 minutes before the last flycatcher songs and calls are given. Interestingly, the birds most likely to rival the flycatcher's position on the "late show" are not songbirds, and include aeolian and percussion performers: Killdeer (*Charadrius vociferus*), Common Snipe (*Capella gallinago*), Blue Grouse (*Dendragapus obscurus*), Ruffed Grouse (*Bonasa umbellus*), Common Nighthawk (*Chordeiles minor*), and American Bittern (*Botaurus lentiginosus*). Latest songbirds to be heard, one or another occasionally outlasting Traill's Flycatcher, are Robin (*Turdus migratorius*), Swainson's Thrush (*Hylocichla ustulata*), and Catbird (*Dumetella carolinensis*).

Without equipment to measure light intensity, I have observed that usually at the cessation of twilight singing darkness finds me making final notes blindly, or straining to distinguish pencil marks six inches from my eyes. A composite of many observations during a period of years yields these approximate figures for ending of the singing period (local mean time): 1 June, 20:53; 3 June, 20:59; 8 June, 21:15; 13 June, 21:17; 21 June, 21:05;

17 July, 21:00; 27 July, 20:50; 4 August, 20:10. Surprisingly, a graphic presentation of this data would show a seasonal curve only slightly influenced by light intensity.

SONG-FLIGHT

Only occasionally and unpredictably do Traill's Flycatchers on my ranch indulge in a special song-flight. I may watch birds for several seasons without observing this interesting performance, then find it given by several birds during a single evening. Or a repeated performance may be given by an individual bird during daytime hours.

From a perch a bird will rise upward in fluttering, zigzag flight to a height of 30 to 50 feet, then descend in a similar erratic manner to the same or a nearby perch, while in the air continually voicing a rapid series of emphatic notes. These may be single-syllable notes: *whew-whit-whew-whew-whit-whit-whew*. . . . At other times a bird will give a mixture of two-, three- and four-note phrases, such as *whew-theer*, *whew-theer*, *whit-whew-theer*, *whew-whew-whit-theer*. . . .

Occasionally a bird will vary this performance by giving a similar song while flying from one perch to another without rising above the shrubbery. It is distinguished from normal and common perch-to-perch movement by slower jerky, zigzag flight.

DISCUSSION

Detailed comparison of songs and calls recorded in the Fortine locality with other published information will not be attempted in this paper; neither will space be taken with an extensive listing of pertinent literature. Yet it may be helpful to professional workers examining the puzzling taxonomic and distributional questions posed by *E. traillii* to comment briefly on differences reported among western populations.

Despite the confusion which may arise from the attempts of observers to record phonetic descriptions of the songs of this species—so well discussed by Allen (1952:108)—, a great variation in vocal expressions of *E. traillii* in western areas is evident. Thus songs conforming to the midwestern *fitz-bew* type have been ascribed to the West in general (Peterson, 1941:115), and specifically to sites in North Dakota (Kellogg and Stein, 1953:77), southwestern Washington (King, 1955:167), and southern British Columbia (Godfrey, 1966:255). Yet at Fortine, centrally located among these three areas, while I have listened to literally thousands of song expressions during a period of 53 years, I have never recorded a two-syllabled song even remotely resembling *fitz-bew*! The only *bew* sounds have occurred in an infrequent call note *whew* and in flight song combinations.

McCabe (1951:91) describes the call note of this species as a clear, melodious *wheet*, adding "there is virtually no difference of opinion or interpretation among ornithologists as to the sound of the call." Yet in my experience the dominant call note at all seasons is a sharp *whit*; as a variation, *wheet* is heard only rarely.

King (1955:169) found that in the Palouse country of Washington Traill's Flycatchers sing only infrequently during midday; at Fortine they are one of the most persistent daytime songsters. He reports also that in that locality cessation of evening song occurs within three minutes of the end of civil twilight; here the period at all seasons continues well beyond that time. This later singing agrees with McCabe's findings in Wisconsin (1951:95).

King (1955:168) observed that during the courting season a three-syllabled song (*whip-a-deer*) predominates, giving way during the nesting season to a two-syllabled song. In my experience I have not heard a three-syllabled song with a *deer* ending, and no seasonal change in dominant songs has been noted.

In Wisconsin, the song-flights described by McCabe (1951:92) appear to be indulged in fairly commonly, although not previously reported from other areas. He reports that birds preface the flight with a series of rapid notes, and cease singing upon reaching the summit of the upward flight. In my experience in extreme northwestern Montana, song-flights are rarely made, perch introductory singing is usually lacking, and birds sing throughout both upward and return downward flights.

In conclusion, it must be admitted that my records leave gaps to be filled by further observation. Detailed study in different locations in the West by the same phonetician, aided by modern recording methods, might disclose a lesser extent of geographical variation than now seems evident. Though singing habits are subject to change, the information presented here has remained pertinent for a half century in the specific locality involved.

SUMMARY

Observations of the singing habits of Traill's Flycatcher at the author's ranch in extreme northwestern Montana cover a period of 53 years. The great variety of songs given in that locality are classified among four types of short perch songs, a perch song series, a perch-to-perch flight song, a chase song, and a true flight song. Use of these types varies with the season, hour of the day, and action of the birds.

Little seasonal change in singing habits or types of short perch songs given occurs. Birds sing quite commonly throughout their summer residence period. Weather conditions have little effect on singing habits. Singing may continue during storms, on unusually cold mornings, and during hot summer days.

In the locality studied Traill's Flycatcher is not among early dawn singers; generally song does not commence until after sunrise. But among species present it is one of the most consistent and persistent daytime singers, being heard commonly at midday and on hot afternoons when other birds are silent.

Twilight hours are the time of true responsive singing, with timing, tempo, and song selection reflecting an interchange of communication among birds participating in a "chorus" period. Though prefaced by scattered calls and songs, the general chorus, usually lasting about 20 minutes, begins and ends quite suddenly. As a rule during the chorus all birds render the same song, which may be replaced by another on the succeeding night. Following the general chorus, occasional songs of a particular type are given. Singing ceases well after dark, usually after all other birds are silent. Time of cessation appears to be little influenced by light intensity.

Occasionally birds engage in a distinctive song-flight, rising in an erratic manner to a height of 30 to 50 feet, then descending in a similar zigzag course to a perch, while in the air continually voicing a rapid series of notes or one- to four-syllabled phrases.

Comparison with published data from the West and Midwest discloses a considerable variation among localities in the calls, songs, and singing habits of this species.

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